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Attorney Docket No. 103797-232-NP

MARKED UP VERSION OF SUBSTITUTE SPECIFICATION

METHOD FOR CLEANING [OF] THE SURFACE OF A CYLINDER

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[Field of invention]

FIELD OF THE INVENTION

10 The present invention relates to [a] an apparatus and method for cleaning the cylinder  
surface of [a cylinder in] a printing press with a blanket treated with a solvent of high  
viscosity, taken from a supply roll, brought into operating contact with the surface to be  
cleaned by pressing means, and subsequently rolled up [in] into a roll [with the] as a  
soiled blanket.

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[Background of invention]

BACKGROUND OF THE INVENTION

20 EP 747 218 B1 discloses a [A] method for cleaning the cylinder surface of a printing  
press with a blanket on a supply roll treated with a solvent of high viscosity[, which  
eliminates] to eliminate the usual dampening of the blanket or the cylinder surface before  
or during the cleaning process[ is known from EP 747 218 B1]. This method can be used  
without any complications when the processed printing material [causing] causes only a  
25 small amount of [less] soiling. [The] However, the solvent in the blanket is insufficient

for cleaning the cylinder surface with the blanket without leaving a residue if materials  
[like for instance cardboard] causing high and sticky soiling, such as cardboard, are used.

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[Summary description of invention]

#### SUMMARY OF THE INVENTION

[Task] An object of the present invention is to provide an apparatus and method for  
10 complication-free cleaning during the processing of all printing materials.

[The task is solved according to the] The present invention accomplishes this by  
providing [a] an apparatus and method for cleaning the surface of cylinders with a  
blanket treated with a solvent of high viscosity, which can be used [also] effectively for  
15 processing [of] printing materials [causing] that cause a high degree of soiling.

Furthermore, the apparatus and method of the present invention provides for the optional

[The task is solved according to the invention by an optional additional] application of a  
cleaning medium for resolution of the soiling on the surface to be cleaned. The cleaning  
20 medium and the resolved soiling are taken up and removed by a blanket treated with a  
solvent.

[Brief description of the drawings]

BRIEF DESCRIPTION OF THE DRAWINGS

5 The invention is described below in greater detail by an embodiment of the invention, by reference being had to the drawing, wherein:

Figure 1[: Schematic] is an exemplary schematic of cylinders of a printing unit with  
a cleaning device in side view; and

10 Figure 2[: Schematic] is an exemplary schematic of a cleaning device in side view.

[Detailed description]

DETAILED DESCRIPTION OF THE INVENTION

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Figure 1 shows a blanket cylinder 1 with an impression cylinder 2 and a plate cylinder 3. The plate cylinder 3 is allocated to an inking unit 4 and a dampening unit 5. The dampening unit 5 comprises [of] a dampening form roller 6, a bridging roller 7, a dampening duct roller 8 and a dampening pan 9. The inking unit 4 comprises [of] inking  
20 form rollers 10 and rider rollers 11. The cleaning device 12 is a functional unit carried on both sides of the printing press in a guide 13 and moveable by a not shown means to [get] place it in contact with the plate cylinder 3, [or] the blanket cylinder 1 or the impression cylinder 2. The cleaning device 12 comprises [of] side frames 14 carrying the supply roll

15 with the blanket 20 in a housing 17. The blanket 20 is treated in a known manner with a solvent of high viscosity and moved along a pressing element 18 and a guiding roll 19 to the soiled blanket roll 16.

5 For cleaning of the cylinders 1, 2, and 3, the inking unit 4 and the dampening unit 5 are disengaged from the plate cylinder 3, and the blanket cylinder 1 is disengaged from the plate cylinder [2] 3 and the impression cylinder 2 in a known manner. Subsequently, the cleaning device 12 is moved in the guide 13 into a position opposite to the plate cylinder 3. The pressing element 18 is now pressurized and [gets] places the blanket 20 in  
10 operating contact with the surface to be cleaned. The solvent contained in the blanket 20 solves the soiling and the blanket takes up the solved soiling. The soiled blanket is rolled up, cycle-wise, to the soiled blanket roll 16 by a not shown means and a fresh blanket [gets] is placed in contact with the surface to be cleaned. [Blanket] The blanket cylinder 1 and the impression cylinder 2 are cleaned similarly [analogue].

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Often times the [The] soiling on the blanket cylinder 1 resulting from processing cardboard is very sticky so that the soiling can not be resolved and removed sufficiently by the solvent in the blanket 20. Thus, the [The] supply of an additional cleaning medium [media] to the blanket cylinder 1 is [therefore] necessary to enable the required cleaning  
20 in a short amount of time. For this purpose, the blanket cylinder 1 is engaged to the plate cylinder 3, which is engaged to the dampening unit 5 so that the blanket cylinder 1 is dampened [though] through the plate cylinder 3. This dampening of the blanket cylinder

surface resolves the dried soiling and [supports] facilitates its removal by the blanket 20 treated with a solvent.

In another embodiment of the present invention, it [It] is [also] feasible to apply the additional cleaning [media] medium with an application device 21 allocated to the  
5 blanket cylinder 1. The additional cleaning medium is absorbed and removed by the blanket 20.

If heavy soiling occurs on the plate cylinder 3, the plate cylinder 3 is disengaged from the blanket cylinder 1 and additional dampening solution is brought to the plate cylinder 3.

If heavy soiling occurs on the impression cylinder 2, the blanket cylinder 1 is engaged to  
10 the impression cylinder 2 after cleaning of the plate cylinder 3 and the blanket cylinder 1 so that dampening solution is fed from the dampening unit 5 via the plate cylinder 3 and the blanket cylinder 1 to the impression cylinder 2. In yet another embodiment, it [It] is [also] feasible to apply the additional cleaning medium through an application device 21 to the blanket cylinder 1 and from there to the impression cylinder 2.